

### REMARKS

Claims 1, 3-7, 9-12, 25, 27-30, 42, 44-54, 56-66, 68-114, 118-121, and 125-128 are pending, with claims 1, 7, 25, 30, 42, 54, 66, 78, 87, 96, 105, 114, and 121 being independent. By virtue of this amendment, claims 1, 3, 4, 6, 7, 9, 10, 12, 29, 30, 53, 65, 86, 95, 104, 113 and 120 have been amended, and claims 13-19, 21-24 and 32-41 have been canceled. No new matter has been introduced.

Claims 1-12, 30, 32-41 and 78-86 have been rejected as being anticipated by So (U.S. Patent No. 5,925,980).

As amended, claim 1 recites a hole transporting layer that includes a first layer, a second layer, and a mixed layer provided between the first layer and the second layer, where the first layer includes a hole injecting material and the mixed layer includes the hole injecting material and a hole transporting material. Applicant requests reconsideration and withdrawal of the rejection of claim 1 and its dependent claims because So does not describe or suggest this feature of claim 1. Instead, So describes a hole transporting region formed of hole transporting material, an electron transporting region formed of electron transporting material, and a graduated region between the two and including both the hole transporting material and the electron transporting material.

As amended, claim 7 recites an electron transporting layer that includes a first layer, a second layer, and a mixed layer provided between the first layer and the second layer, where the first layer includes an electron injecting material, the mixed layer includes the electron injecting material and an electron transporting material, and the second layer includes the electron transporting material. Applicant requests reconsideration and withdrawal of the rejection of claim 7 and its dependent claims because, for the reasons noted above, So does not describe or suggest this feature of claim 7.

As amended, claim 30 recites a first mixed region contiguous to the anode, comprising a hole injecting material and a hole transporting material; a second mixed region contiguous to the first region, comprising the hole transporting material and a host material; a third mixed region contiguous to the second mixed region, comprising the host material and a blocking material;

and a fourth mixed region provided between the third mixed region and the cathode, comprising an electron injecting material and an electron transporting material. Applicant requests reconsideration and withdrawal of the rejection of claim 30, and its dependent claims, because So does not describe or suggest this feature of claim 30.

Claim 78 recites a mixed region provided between a hole transporting region and an electron transporting region, the mixed region including a hole transporting material and an electron transporting material, and further including a luminescent region formed by adding a luminescent material in the mixed region. Applicant requests reconsideration and withdrawal of the rejection of claim 78, and its dependent claims, because So does not describe or suggest this feature of claim 78.

Claims 1, 3-7 and 8-12 have been rejected as being unpatentable over Tamano (U.S. Patent No. 6,150,042). As noted above, claim 1 has been amended to recite a hole transporting layer that includes a first layer, a second layer, and a mixed layer provided between the first layer and the second layer, where the first layer includes a hole injecting material and the mixed layer includes the hole injecting material and a hole transporting material. Applicant requests reconsideration and withdrawal of the rejection of claim 1 and its dependent claims because Tamano does not describe or suggest this feature of claim 1.

As noted above, claim 7 has been amended to recite an electron transporting layer that includes a first layer, a second layer, and a mixed layer provided between the first layer and the second layer, where the first layer includes an electron injecting material, the mixed layer includes the electron injecting material and an electron transporting material, and the second layer includes the electron transporting material. Applicant requests reconsideration and withdrawal of the rejection of claim 7 and its dependent claims because Tamano does not describe or suggest this feature of claim 7.

Claims 25, 27-30, 42, 44-54, 56-66, 68-114, 118-121 and 125-1 28 have been provisionally rejected for obviousness-type double patenting over claims 1-148 of co-pending Application No.10/060,427. Applicants request that this rejection be held in abeyance until the claims of one of the applications are allowed.

Applicant : Satoshi Seo et al.  
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Enclosed is a \$1200 check for the Three-Month Extension of Time fee (\$1020) and the late submission late submission fee of §1.17(p) (\$180). Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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